AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings of claims in the application:

LISTING OF CLAIMS:

1.(original) A method of synchronizing the injection with the engine phase in an engine with electronic injector control having n cylinders into which fuel is injected directly into each of the cylinders successively in a predetermined sequence, the fuel injection being synchronized with the position of the piston in the corresponding cylinder, characterized in that it comprises the following steps, performed when the engine is started:

- injection of fuel into m cylinders in the predetermined injection sequence when the corresponding pistons, put into motion by means of a starter, are at the end of the compression phase, m being determined in advance as a function of n,
- measurement of the engine speed and/or its acceleration,
- continuation of the injection in the predetermined sequence if the engine speed and/or its acceleration exceed a predetermined threshold, the injection being synchronized with the engine phase in this case,
- continuation of the injection with a phase change with respect to the preceding injections and with respect to the predetermined sequence, this phase change being a function of n and m, so that the injection is synchronized with the engine phase, in the contrary case.

2.(original) The synchronization method as claimed in claim 1, characterized in that the engine speed and/or its

acceleration are measured after approximately one revolution of the engine.

3.(currently amended) The synchronization method as claimed in either ~~one of claims~~ claim 1 ~~and 2~~, for an engine having an even number of cylinders, characterized in that m = n/2.

4.(currently amended) The synchronization method as claimed in ~~any one of claims~~ claim 1 ~~to 3~~, characterized in that a second measurement of the engine speed and/or its acceleration is made after p further injections, p being determined in advance as a function of n and m, to check that the synchronization is correct.

5.(original) The synchronization method as claimed in claim 4, characterized in that the second measurement of the engine speed and/or its acceleration is made after two actual revolutions of the engine, in other words after n injections of fuel.

6.(currently amended) The synchronization method as claimed in ~~any one of claims~~ claim 1 ~~to 5~~, characterized in that the position of the pistons in the cylinders of the engine is determined by a position sensor measuring the angular position of the corresponding engine flywheel.

7.(currently amended) The synchronization method as claimed in ~~any one of claims~~ claim 1 ~~to 6~~, characterized in that the dose of fuel injected in the first m injections is smaller than that used in the subsequent injections.

8.(new) The synchronization method as claimed in claim 2, for an engine having an even number of cylinders, characterized in that m = n/2.

9.(new) The synchronization method as claimed in claim 2, characterized in that a second measurement of the engine speed and/or its acceleration is made after p further injections, p being determined in advance as a function of n and m, to check that the synchronization is correct.

10.(new) The synchronization method as claimed in claim 3, characterized in that a second measurement of the engine speed and/or its acceleration is made after p further injections, p being determined in advance as a function of n and m, to check that the synchronization is correct.

11.(new) The synchronization method as claimed in claim 2, characterized in that the position of the pistons in the cylinders of the engine is determined by a position sensor measuring the angular position of the corresponding engine flywheel.

12.(new) The synchronization method as claimed in claim 3, characterized in that the position of the pistons in the cylinders of the engine is determined by a position sensor measuring the angular position of the corresponding engine flywheel.

13.(new) The synchronization method as claimed in claim 4, characterized in that the position of the pistons in the cylinders of the engine is determined by a position sensor measuring the angular position of the corresponding engine flywheel.

14.(new) The synchronization method as claimed in claim 5, characterized in that the position of the pistons in the cylinders of the engine is determined by a position sensor

measuring the angular position of the corresponding engine flywheel.

15.(new) The synchronization method as claimed in claim 2, characterized in that the dose of fuel injected in the first m injections is smaller than that used in the subsequent injections.

16.(new) The synchronization method as claimed in claim 3, characterized in that the dose of fuel injected in the first m injections is smaller than that used in the subsequent injections.

17.(new) The synchronization method as claimed in claim 4, characterized in that the dose of fuel injected in the first m injections is smaller than that used in the subsequent injections.

18.(new) The synchronization method as claimed in claim 5, characterized in that the dose of fuel injected in the first m injections is smaller than that used in the subsequent injections.

19.(new) The synchronization method as claimed in claim 6, characterized in that the dose of fuel injected in the first m injections is smaller than that used in the subsequent injections.